

Serial No. 10/811,630
60282-032**AMENDMENTS TO THE CLAIMS:**

Please amend the claims as follows. This listing of claims will replace all prior listings.

1. (CURRENTLY AMENDED) A high pressure fluid jetting system comprising:
a frame plate which defines a fluid pumping chamber; and
a pressure assembly within said frame plate said pressure assembly comprising an outer pressure sleeve and an inner pressure sleeve having an angled interference surface therebetween;
a plunger reciprocally movable within said inner pressure sleeve of said pressure assembly;
a seal cartridge assembly pressed into said fluid pumping chamber of said frame plate, the seal cartridge assembly located adjacent said pressure assembly wherein said seal cartridge assembly comprises:
an inner seal cartridge, and an outer seal cartridge having an angled interference surface therebetween; and
a packing assembly within said inner seal cartridge.
2. (PREVIOUSLY PRESENTED) The assembly as recited in claim 1, wherein said pressure assembly operates at approximately 50,000 pounds per square inch of pressure.
- 3-22. (CANCELED)
23. (CURRENTLY AMENDED) The system as recited in claim 221, wherein said inner seal cartridge is maintained in compression by said outer seal cartridge.
- 24-25. (CANCELED)

Serial No. 10/811,630
60282-032

26. (CURRENTLY AMENDED) A method of assembling a high pressure fluid jetting system comprising the steps of:

(1) locating an outer pressure sleeve within a frame plate of a fluid cylinder pump;
(2) locating an inner pressure sleeve within the outer pressure sleeve, the outer pressure sleeve and the inner pressure sleeve having an angled interference surface therebetween;
and

(3) ~~attaching a manifold to the frame plate to press the inner pressure sleeve into the outer pressure sleeve~~ pressing the inner pressure sleeve into the outer pressure sleeve and the outer pressure sleeve into an inner bore of the frame plate in response to mounting the manifold to the frame plate to seat the inner pressure sleeve within the outer pressure sleeve.

27. (PREVIOUSLY PRESENTED) A method as recited in claim 26, wherein said step (3) further comprises the step of:

bolting the manifold to the frame plate.

28. (PREVIOUSLY PRESENTED) A method as recited in claim 26, wherein said step (3) further comprises the step of:

locating the outer pressure sleeve within an inner bore of the frame plate such that a flange of the outer pressure sleeve abuts the frame plate.

29. (PREVIOUSLY PRESENTED) A method as recited in claim 26, wherein said step (3) further comprises the step of:

pressing the inner pressure sleeve into the outer pressure sleeve and the outer pressure sleeve into an inner bore of the frame plate.

30. (CURRENTLY AMENDED) The system as recited in claim ~~22~~ 1, wherein said inner seal cartridge defines an outer diameter less than an outer diameter of said inner pressure sleeve.

Serial No. 10/811,630
60282-032

31. (CURRENTLY AMENDED) The system as recited in claim ~~23~~ 1, wherein said angled interference surface between said inner seal cartridge and said outer seal cartridge abuts an end of said inner pressure sleeve and a flange plate.

32. (PREVIOUSLY PRESENTED) The system as recited in claim 31, further comprising a manifold adjacent said frame plate, said manifold mounted to said flange plate through a multitude of fasteners which pass through said frame plate.

33. (PREVIOUSLY PRESENTED) The system as recited in claim 25, wherein said packing assembly is located within an inner seal cartridge, said inner seal cartridge mounted within an outer seal cartridge, and said inner seal cartridge and said outer seal cartridge having an angled interference surface therebetween.

34. (PREVIOUSLY PRESENTED) The system as recited in claim 1, wherein said outer pressure sleeve includes a radially extending flange which abuts said frame plate.

35. (PREVIOUSLY PRESENTED) A high pressure fluid jetting system comprising:
a frame plate having a fluid pumping chamber;
a pressure assembly within said frame plate comprising an outer pressure member and an inner pressure member having an angled interference surface therebetween;
a seal cartridge assembly at least partially within said frame plate, said seal cartridge assembly comprising an outer seal cartridge and an inner seal cartridge, said inner seal cartridge and said outer seal cartridge having an angled seal cartridge interference surface therebetween, said seal cartridge assembly located adjacent said pressure assembly;
a plunger reciprocally movable within said pressure assembly and said seal assembly; and
a valve seat assembly adjacent said pressure assembly.

Serial No. 10/811,630
60282-032

36. (PREVIOUSLY PRESENTED) The system as recited in claim 35, wherein said angled interference surface between said inner seal cartridge and said outer seal cartridge abuts an end of said inner pressure sleeve and a flange plate.

37. (PREVIOUSLY PRESENTED) The system as recited in claim 36, further comprising a manifold adjacent said frame plate, said manifold mounted to said flange plate through a multitude of fasteners which pass through said frame plate.

38. (PREVIOUSLY PRESENTED) The system as recited in claim 37, wherein said manifold engages said valve seat assembly.

39. (PREVIOUSLY PRESENTED) The system as recited in claim 35, wherein said valve seat assembly includes an outer valve seat and an inner valve seat, said outer surface of the inner valve seat and an inner surface of said outer valve seat form a valve seat interference surface which maintains said inner valve seat in internal compressive stress.

40. (CANCELED)

Serial No. 10/811,630
60282-032

41. (NEW) A valve seat assembly for a high pressure fluid jetting system comprising:
an outer cartridge guide having a flange which extends therefrom;
a valve seat having a multitude of radial passageways, said outer cartridge guide received within said valve seat such that said flange is received within a counter bore of said valve seat;
an inner cartridge stop received within said outer cartridge guide; and
a suction valve spring engaged with said inner cartridge stop and a suction valve, said suction valve received at least partially within said valve seat, said suction valve biased upon said suction valve spring for movement relative said inner cartridge stop and said outer cartridge guide, said suction valve defining an axial suction valve passage through a longitudinal length of said suction valve along a suction valve axis.
42. (NEW) The assembly as recited in claim 41, wherein said suction valve further comprising:
a cylindrical body which defines a plurality of generally rectilinear openings therethrough;
a skirt extending about said cylindrical body said skirt defining a diameter larger than a diameter defined by said cylindrical body; and
a low friction coating applied to said cylindrical body and said skirt, wherein said coated suction valve comprises a Titanium Dioxide coating.
43. (NEW) The assembly as recited in claim 42, further comprising a guide radius within said skirt transverse to said radial passageways which traverses a perimeter of said skirt to direct a fluid from the radial passageways toward said generally rectilinear openings to minimize turbulent fluid flow
44. (NEW) The assembly as recited in claim 42, further comprising a discharge valve assembly mounted adjacent said valve seat assembly, said discharge valve assembly including a discharge valve guide and a discharge valve received therein, said discharge valve guide includes

Serial No. 10/811,630
60282-032

a discharge valve guide skirt and a discharge valve guide stem, said discharge valve opening providing a radiused clearance about said discharge valve guide skirt.

45. (NEW) The assembly as recited in claim 44, wherein said discharge valve is spring biased toward said suction valve along said suction valve axis.

46. (NEW) The assembly as recited in claim 45, wherein said discharge valve guide has a discharge valve guide skirt and a discharge valve guide stem, said discharge valve having a discharge valve stem and a discharge valve head, said discharge valve stem axially guided within said discharge valve guide stem and said discharge valve head axially guided within said discharge valve guide skirt along a common axis.

47. (NEW) The assembly as recited in claim 46, wherein said discharge valve spring is located within said discharge valve stem.